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| 10/028,385 | 12/21/2001 | Joseph Meehan | US 010603 | 4892 |

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| EXAMINER | |
|---|---|
| TORRES, JUAN A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2611 | |

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/028,385 | MEEHAN ET AL. | |
| | Examiner | Art Unit | |
| | Juan A. Torres | 2611 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *09 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) *2* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-7,10-14 and 17-22* is/are rejected.

7)☒ Claim(s) *8,9,15 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 June 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Drawings*

The drawings are objected to because:

1) Figures 1, 3A and 34B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g) (see specification page 8 lines 6-7 and 19-20). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2) In figure 5 lock 130 it is not indicated which output is "YES" and which output is "NO"; it is suggested to indicated these outputs.

3) The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the:

a) "the step of demodulating said first predetermined portion of said preamble information received by said first antenna to obtain said first preamble sequence";

b) "the step of demodulating said second predetermined portion of said preamble information received by said second antenna to obtain said second preamble sequence"

c) "the steps of selecting said first antenna for subsequent reception of said incoming signals if the MSE for said first preamble sequence received from said first antenna is lower than a predetermined threshold value"

d) "the step of selecting said second antenna for subsequent reception of said incoming signals if the MSE for said first preamble sequence received from said first antenna exceeds said predetermined threshold value"

e) "the step of generating a time-varying convergence rate based on said calculated MSE for said first preamble sequence and said preamble sequence in an x-y plot"; and

f) "the step of selecting one of said first antenna and said second antenna having a faster convergence rate for subsequent reception of said incoming signals"

Must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

The disclosure is objected to because of the following informalities:

a) In page 5 line 10 and 12; page 8 lines 6 and 19; page 9 lines 12 and 15; and page 10 line 19 the recitations "3(a)"; "3(b)"; "4(a)"; and "4(b)" are improper (see figures 3A, 3B, 4A, 4B); it is suggested to be changed to "3A"; "3B"; "4A"; and "4B" respectively.

Appropriate correction is required.

***Claim Objections***

Claim 3 is objected to because of the following informalities: the recitation in line 2 of claim 3 "a known priori" is improper because it is improperly constructed; It is suggested to be changed to "known a priori".

Claim 6 is objected to because of the following informalities: the recitation in line 2 of claim 6 "if" is improper because the use the word "if" render the claim indefiniteness; it is clear what it happens if the condition is met, but if that condition is not met is indefinite. It is suggested to change the word "if" to "when".

Claim 7 is objected to because of the following informalities: the recitation in line 2 of claim 7 "if" is improper because the use the word "if" render the claim

indefiniteness; it is clear what it happens if the condition is met, but if that condition is not met is indefinite. It is suggested to change the word "if" to "when".

Claim 12 is objected to because of the following informalities: the recitation in lines 1-2 of claim 12 "a known priori" is improper because it is improperly constructed; It is suggested to be changed to "known a priori".

Claim 13 is objected to because of the following informalities: the recitation in line 2 of claim 13 "if" is improper because the use the word "if" render the claim indefiniteness; it is clear what it happens if the condition is met, but if that condition is not met is indefinite. It is suggested to change the word "if" to "when".

Claim 14 is objected to because of the following informalities: the recitation in line 2 of claim 14 "if" is improper because the use the word "if" render the claim indefiniteness; it is clear what it happens if the condition is met, but if that condition is not met is indefinite. It is suggested to change the word "if" to "when".

Claim 16 is objected under 37 CFR 1.75 as being a substantial duplicate of claim 9. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

It seems that the Applicants mean that claim 16 should depends from claim 15 instead of from claim 8.

Claim 18 is objected to because of the following informalities: the recitation in lines 1-2 of claim 18 "a known priori" is improper because it is improperly constructed; It is suggested to be changed to "known a priori".

Claim 21 is objected to because of the following informalities: the recitation in lines 1-2 of claim 21 "a known priori" is improper because it is improperly constructed; It is suggested to be changed to "known a priori".

Appropriate correction is required.

***Response to Arguments***

Applicant's arguments with respect to claims 1, 10, 17 and 20 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5, 10, 11, 12 and 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Åkerberg (WO 9602984 A) (with Paatelma (US 6029057 A) for inherency).

As per claim 1, Åkerberg discloses a method for enhancing the signal reception of a digital wireless receiver, the method comprising the steps of extracting a preamble information from a plurality of incoming signals (abstract, figure 2; page 7 lines 8-17; page 8 lines 15-21; and page 11 lines 1-18); processing a first predetermined portion of

the preamble information with a first antenna to produce a first preamble sequence (abstract); processing a second predetermined portion of the preamble information with a second antenna to produce a second preamble sequence (abstract, figure 2; page 7 lines 8-17; page 8 lines15-21; and page 11 lines 1-18); calculating a quality factor, for example the mean-square error (MSE) for the first preamble sequence received from the first antenna and the second preamble sequence received from the second antenna by separately comparing the first preamble sequence and the second preamble sequence with a predefined preamble sequence (abstract, page 5 lines 4-15. Åkerberg discloses that any quality determining factor can be used, such as the BER, page 5 lines 13-15, and Paatelma specifically indicates that the MSE and the BER are a quality factor, column 1 lines 63-65); and, selecting one of the first antenna and the second antenna having a lower MSE for subsequent reception of the incoming signals (page 9 lines 1-20).

As per claim 3, Åkerberg discloses claim 1, Åkerberg also discloses that the predefined preamble sequence is a known priori (abstract, specific bit pattern page 7 lines 12-25).

As per claim 4, Åkerberg discloses claim 1, Åkerberg also discloses demodulating the first predetermined portion of the preamble information received by the first antenna to obtain the first preamble sequence (abstract, page 5 lines 4-15. To obtain the BER it is required to demodulate the signal).

As per claim 5, Åkerberg discloses claim 1, Åkerberg also discloses demodulating the second predetermined portion of the preamble information received

by the second antenna to obtain the second preamble sequence (abstract, page 5 lines 4-15. To obtain the BER it is required to demodulate the signal).

As per claim 10, Åkerberg discloses a method for enhancing the signal reception of a digital wireless receiver, the method comprising the steps of receiving a plurality of incoming signals (abstract, figure 2; page 7 lines 8-17; page 8 lines 15-21; and page 11 lines 1-18); dividing the header information of the incoming signals to process the divided header information by a first antenna and a second antenna (abstract); separately comparing the processed header information from the first antenna and the second antenna with a predefined preamble sequence to obtain a quality factor, for example the mean-square error (MSE) (abstract, page 5 lines 4-15. Åkerberg discloses that any quality determining factor can be used, such as the BER, page 5 lines 13-15, and Paatelma specifically indicates that the MSE and the BER are a quality factor, column 1 lines 63-65); and selecting one of the first antenna and the second antenna having a lower MSE for subsequent reception of the incoming signals (page 9 lines 1-20).

As per claim 11, Åkerberg discloses claim 10, Åkerberg also discloses dividing the header information of the incoming signals further comprises the step of demodulating the header information of the incoming signals received from the first antenna and the second antenna to obtain the processed header information (abstract, page 5 lines 4-15. To obtain the BER it is required to demodulate the signal).

As per claim 12, Åkerberg discloses claim 10, Åkerberg also discloses that the predefined preamble sequence is a known priori (abstract, specific bit pattern page 7 lines 12-25).

As per claim 17, Åkerberg discloses an apparatus for enhancing the signal reception of a digital wireless receiver, comprising a processing circuit for processing a preamble information of incoming signals, where a first predetermined portion of the preamble information is received by a first antenna and a second predetermined portion of the preamble information is received by a second antenna to produce a received first portion and a received second portion respectively, and the received first portion and a received second portion are separately compared to a predefined preamble sequence to obtain a quality factor, for example the mean-square error (MSE) for the respective first and second antenna (abstract, figure 2; page 7 lines 8-17; page 8 lines 15-21; and page 11 lines 1-18 page 5 lines 4-15. Åkerberg discloses that any quality determining factor can be used, such as the BER, page 5 lines 13-15, and Paatelma specifically indicates that the MSE and the BER are a quality factor, column 1 lines 63-65); and a selecting circuit for selecting one of the first antenna and the second antenna having a lower MSE for subsequent reception of the incoming signals (page 9 lines 1-20).

As per claim 18, Åkerberg discloses claim 17, Åkerberg also discloses that the predefined preamble sequence is a known priori (abstract, specific bit pattern page 7 lines 12-25).

As per claim 19, Åkerberg discloses claim 17, Åkerberg also discloses demodulating the preamble information of the incoming signals received from the first

antenna and the second antenna prior to comparing (abstract, page 5 lines 4-15. To obtain the BER it is required to demodulate the signal).

As per claim 20, Åkerberg discloses a first antenna for receiving the incoming signals (figure 1 block A1, page 5 lines 4-15); a second antenna for receiving the incoming signals (figure 1 block A2, page 5 lines 4-15); a processing circuit for processing a preamble information of the incoming signals, where a first predetermined portion of the preamble information is received by the first antenna and a second predetermined portion of the preamble information is received by the second antenna to produce a received first portion and a received second portion respectively, and the received first portion and a received second portion are separately compared to a predefined preamble sequence to generate a quality factor, for example the mean-square error (MSE) for the respective first and second antenna (abstract, figure 2; page 7 lines 8-17; page 8 lines 15-21; and page 11 lines 1-18 page 5 lines 4-15. Åkerberg disclose that any quality determining factor can be used, such as the BER, page 5 lines 13-15, and Paatelma specifically indicates that the MSE and the BER are a quality factor, column 1 lines 63-65); and a selecting circuit for selecting one of the first antenna and the second antenna having a lower MSE for subsequent reception of the incoming signals (page 9 lines 1-20).

As per claim 21, Åkerberg discloses claim 20, Åkerberg also discloses that the predefined preamble sequence is a known priori (abstract, specific bit pattern page 7 lines 12-25).

As per claim 22, Åkerberg discloses claim 20, Åkerberg also discloses demodulating the preamble information of the incoming signals received from the first antenna and the second antenna prior to comparing (abstract page 5 lines 4-15. To obtain the BER it is required to demodulate the signal).

Claims 1, 3-7, 10-14 and 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Siwiak (US 5446922 A) (with Paatelma (US 6029057 A) for inherency).

As per claim 1, Siwiak discloses a method for enhancing the signal reception of a digital wireless receiver, the method comprising the steps of extracting a preamble information from a plurality of incoming signals (abstract; column 1 line 55 to column 2 line 7; figure 5 block 500; column 8 lines 27-42); processing a first predetermined portion of the preamble information with a first antenna to produce a first preamble sequence (abstract; column 1 line 55 to column 2 line 7; figure 5 block 504; column 8 lines 27-42); processing a second predetermined portion of the preamble information with a second antenna to produce a second preamble sequence (abstract; figure 5 block 508; column 8 lines 27-42); calculating a quality factor, for example the mean-square error (MSE) for the first preamble sequence received from the first antenna and the second preamble sequence received from the second antenna by separately comparing the first preamble sequence and the second preamble sequence with a predefined preamble sequence (abstract; column 1 line 55 to column 2 line 7; figure 5 block 510; column 8 lines 43-51. Siwiak discloses that the quality determining factor to be used is the BER, column 8 lines 27-42, Paatelma specifically indicates that the MSE and the bit error count are a quality factor, column 1 lines 63-65); and, selecting one of

the first antenna and the second antenna having a lower MSE for subsequent reception of the incoming signals (abstract; column 1 line 55 to column 2 line 7; figure 5 blocks 512 and 514; column 8 lines 43-51).

As per claim 3, Siwiak discloses claim 1, Siwiak also discloses that the predefined preamble sequence is a known priori (abstract; column 1 line 55 to column 2 line 7).

As per claim 4, Siwiak discloses claim 1, Siwiak also discloses demodulating the first predetermined portion of the preamble information received by the first antenna to obtain the first preamble sequence (abstract; column 1 line 55 to column 2 line 7; figure 5 block 504; column 8 lines 27-42. To obtain the bit error count it is required to demodulate the signal).

As per claim 5, Siwiak discloses claim 1, Siwiak also discloses demodulating the second predetermined portion of the preamble information received by the second antenna to obtain the second preamble sequence (abstract; figure 5 block 508; column 8 lines 27-42. To obtain the bit error count it is required to demodulate the signal).

As per claim 6, Siwiak discloses claim 1, Siwiak also discloses selecting the first antenna for subsequent reception of the incoming signals if the quality factor of said first preamble sequence received from said first antenna is lower than a predetermined threshold value (column 1 lines 19-32).

As per claim 7, Siwiak discloses claim 6, Siwiak also discloses selecting the second antenna for subsequent reception of the incoming signals if the quality factor for

the first preamble sequence received from the first antenna exceeds the predetermined threshold value (column 1 lines 19-32).

As per claim 10, Siwiak discloses a method for enhancing the signal reception of a digital wireless receiver, the method comprising the steps of: receiving a plurality of incoming signals (abstract; column 1 line 55 to column 2 line 7; figure 5 block 500; column 8 lines 27-42); dividing the header information of the incoming signals to process the divided header information by a first antenna and a second antenna (abstract; column 1 line 55 to column 2 line 7; figure 5 block 500; column 8 lines 27-42); separately comparing the processed header information from the first antenna and the second antenna with a predefined preamble sequence to obtain a quality factor, for example the mean-square error (MSE) (abstract; column 1 line 55 to column 2 line 7; figure 5 block 510; column 8 lines 43-51. Siwiak discloses that the quality determining factor to be used is the BER, column 8 lines 27-42, Paatelma specifically indicates that the MSE and the bit error count are a quality factor, column 1 lines 63-65); and selecting one of the first antenna and the second antenna having a lower MSE for subsequent reception of the incoming signals (abstract; column 1 line 55 to column 2 line 7; figure 5 blocks 512 and 514; column 8 lines 43-51).

As per claim 11, Siwiak discloses claim 10, Siwiak also discloses dividing the header information of the incoming signals further comprises the step of demodulating the header information of the incoming signals received from the first antenna and the second antenna to obtain the processed header information (abstract; column 1 line 55

to column 2 line 7; figure 5 blocks 504 and 508; column 8 lines 27-42. To obtain the bit error count it is required to demodulate the signal).

As per claim 12, Siwiak discloses claim 10, Siwiak also discloses that the predefined preamble sequence is a known priori (abstract; column 1 line 55 to column 2 line 7).

As per claim 13, Siwiak discloses claim 10, Siwiak also discloses selecting the first antenna for subsequent reception of the incoming signals if the quality factor of said first preamble sequence received from said first antenna is lower than a predetermined threshold value (column 1 lines 19-32).

As per claim 14, Siwiak discloses claim 13, Siwiak also discloses selecting the second antenna for subsequent reception of the incoming signals if the quality factor for the first preamble sequence received from the first antenna exceeds the predetermined threshold value (column 1 lines 19-32).

As per claim 17, Siwiak discloses an apparatus for enhancing the signal reception of a digital wireless receiver, comprising a processing circuit for processing a preamble information of incoming signals, where a first predetermined portion of the preamble information is received by a first antenna and a second predetermined portion of the preamble information is received by a second antenna to produce a received first portion and a received second portion respectively, and the received first portion and a received second portion are separately compared to a predefined preamble sequence to obtain a quality factor, for example the mean-square error (MSE) for the respective first and second antenna (abstract; column 1 line 55 to column 2 line 7; figure 5 block

510; column 8 lines 43-51. Siwiak discloses that the quality determining factor to be used is the BER, column 8 lines 27-42, Paatelma specifically indicates that the MSE and the bit error count are a quality factor, column 1 lines 63-65); and a selecting circuit for selecting one of the first antenna and the second antenna having a lower MSE for subsequent reception of the incoming signals (abstract; column 1 line 55 to column 2 line 7; figure 5 blocks 512 and 514; column 8 lines 43-51).

As per claim 18, Siwiak discloses claim 17, Siwiak also discloses that the predefined preamble sequence is a known priori (abstract; column 1 line 55 to column 2 line 7).

As per claim 19, Siwiak discloses claim 17, Siwiak also discloses demodulating the preamble information of the incoming signals received from the first antenna and the second antenna prior to comparing (abstract; column 1 line 55 to column 2 line 7; figure 5 blocks 504 and 508; column 8 lines 27-42. To obtain the bit error count it is required to demodulate the signal).

As per claim 20, Siwiak discloses a first antenna for receiving the incoming signals (figure 1 block 102, column 5 lines 24-37); a second antenna for receiving the incoming signals (figure 1 block 102, column 5 lines 24-37); a processing circuit for processing a preamble information of the incoming signals, where a first predetermined portion of the preamble information is received by the first antenna and a second predetermined portion of the preamble information is received by the second antenna to produce a received first portion and a received second portion respectively, and the received first portion and a received second portion are separately compared to a

predefined preamble sequence to generate a quality factor, for example the mean-square error (MSE) for the respective first and second antenna (abstract; column 1 line 55 to column 2 line 7; figure 5 block 510; column 8 lines 43-51. Siwiak discloses that the quality determining factor to be used is the BER, column 8 lines 27-42, Paatelma specifically indicates that the MSE and the bit error count are a quality factor, column 1 lines 63-65); and a selecting circuit for selecting one of the first antenna and the second antenna having a lower MSE for subsequent reception of the incoming signals (abstract; column 1 line 55 to column 2 line 7; figure 5 blocks 512 and 514; column 8 lines 43-51).

As per claim 21, Siwiak discloses claim 20, Siwiak also discloses that the predefined preamble sequence is a known priori (abstract; column 1 line 55 to column 2 line 7).

As per claim 22, Siwiak discloses claim 20, Siwiak also discloses demodulating the preamble information of the incoming signals received from the first antenna and the second antenna prior to comparing (abstract; column 1 line 55 to column 2 line 7; figure 5 blocks 504 and 508; column 8 lines 27-42. To obtain the bit error count it is required to demodulate the signal).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Paatelma (US 6029057 A) used for inherency also discloses that quality of the signal is predicted for several frames ahead; the predicted quality is compared with a long-term weighted average, if the predicted quality is below the weighted average, the signal is changed. Paatelma doesn't disclose generating a time-

varying convergence rate based on said calculated MSE for the first preamble sequence and the preamble sequence in an x-y plot, and selecting one of the first antenna and the second antenna having a faster convergence rate for subsequent reception of the incoming signals. Feng (US 7099380 B1) discloses a technique for using antenna diversity for wireless communication in a multipath signal environment. Woolley (US 5742646 A) discloses witching from one signal path to another signal path to improve reception of a digital signal. Granata (US 6009307 A) discloses multiple antenna detecting and selecting. Guillouard (US 20050063496 A1) discloses selecting a receiving path for a device having at least two receiving paths. Furuya (US 4742568 A) discloses a receiver comprising a switching circuit responsive to an antenna switching signal for switching between two antennas to produce a received signal, a noise estimating circuit for estimating the quantity of noise from the received signal, and an integrating circuit for integrating the noise to produce a first control signal which serves as the antenna switching signal. Rambo (US 4499606 A) discloses continuous selection among two or more received samples of a transmitted signal. Belotserkovsky (US 20040199835 A1) discloses to evaluate the performance of the paths via which it receives signals, in particular in the case of digital signals, these evaluations being, for example, designed for the purposes of selecting a better path. Mahany (US 6018555 A) discloses a network utilizing modified preambles that support antenna diversity. Morris (US 5960046 A) discloses Preamble based selection diversity in a time division multiple access radio system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Juan Alberto Torres
20-11-2006

TEMESGHEN GHEBRETINSAE
PRIMARY EXAMINER
12/8/06
CMT